Index of Claims



Application/Control No.

10/665,149 Examiner

Date

Julian D. Huffman

Applicant(s)/Patent under Reexamination

TAKAHASHI ET AL.

Art Unit

2853

| - | <b>√</b> | Rejected |
|---|----------|----------|
|   | _        | Allowed  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
|   | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Claim   |         | 1                | Щ                |                    |  |               |              | ļ        |  |          |  |     |       |          |              |              |   |
|---|---------|------------------|------------------|--------------------|--|---------------|--------------|----------|--|----------|--|-----|-------|----------|--------------|--------------|---|
| Eu     100  | CI      | im               | _                |                    |  |               |              |          |  |          |  | 1   | Cla   | nim .    |              |              | _ |
| 1   51     2   52     3   53     4   54     5   55     6   56     7   7     8   55     6   56     7   7     8   58     -9   60     40   60     41   61     12   62     43   63     44   64     45   65     46   66     47   67     48   68     49   69     70   71     22   72     73   74     25   75     26   76     27   77     28   78     79   30     30   80     31   81     32   82     33   83     34   84     36   86     37   87  | Cit     | 11111            |                  | r                  |  |               | Jan          |          | _  |          | _  | 1   | Cla   | 11111    | _            | _            | г |
| 2   3   52   53     4   5   55   56     7   7   55   56     7   7   7   7     8   7   57   8     8   9   59   60     40   60   61   61     12   62   63   64     44   64   64   65     44   66   66   67     44   66   66   67     44   66   66   67     44   66   66   67     45   46   68   69     20   70   71   71     22   72   72   72     23   73   74   74     25   75   75   76     27   77   77   28   82     33   33   80   80     34   84   84   85     36   38   38   88     39  | Final   | Original         | 3/23/05          |                    |  |               |              |          |  |          |  |     | Final | Original |              |              |   |
| 2   3   52   53     4   5   55   56     7   7   55   56     7   7   7   7     8   7   57   8     8   9   59   60     40   60   61   61     12   62   63   64     44   64   64   65     44   66   66   67     44   66   66   67     44   66   66   67     44   66   66   67     45   46   68   69     20   70   71   71     22   72   72   72     23   73   74   74     25   75   75   76     27   77   77   28   82     33   33   80   80     34   84   84   85     36   38   38   88     39  |         | 1                | 1                |                    | Н  | H             |              | Н        |  | Н        |  |     |       | 51       |              |              | ŀ |
| 3   4   5   54   55   56   7   55   56   77   8   55   56   77   8   58   59   59   59   49   60   60   60   61   61   62   63   64   64   64   64   64   64   64   64   64   65   66   67   48   68   69   69   69   70   24   71   71   72   72   73   73   73   74   72   73   74   72   72   73   74   74   72   77   77   28   78   79   30   80   81   82   33   33   84   84   84   84   84   84   84   86   37   87   38   89   90   90   91   92   93   94   94   95   96   97   97   98   99   99   99   99   99   99   99   99   99   99   99   99   99   99   99 <td></td> <td></td> <td>Ĭ</td> <td></td> <td>Г</td> <td>Г</td> <td></td> <td>_</td> <td></td> <td>П</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>r</td>  |         |                  | Ĭ                |                    | Г  | Г             |              | _        |  | П        |  |     |       |          |              |              | r |
| 4   5     5   55     6   55     7   7     8   57     8   59     40   60     41   61     12   62     43   64     44   64     45   66     46   66     47   67     48   68     49   69     20   70     21   72     23   73     24   74     25   75     26   77     28   79     30   80     31   81     32   82     33   83     34   84     26   85     36   86     37   88     39   89     40   90     41   91     42   90     43   93     44   94 <tr< td=""><td></td><td>3</td><td>H</td><td></td><td></td><td><math>\vdash</math></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>r</td></tr<>  |         | 3                | H                |                    |  | $\vdash$      |              |          |  |          |  |     |       |          |              |              | r |
| 5   55   56   57   58   59   59   59   59   59   59   59  |         | 4                | T                |                    |  | $\overline{}$ | Г            | $\vdash$ |  | П        |  |     |       | 54       |              |              | r |
| 6   |         | 5                | T                | $\vdash$           |  |               | Г            |          |  |          |  |     |       |          |              |              | r |
| 7   V   57     8   J   58     -9   60     40   61     11   61     12   62     43   64     44   64     45   66     46   66     47   67     48   68     49   69     20   70     21   72     23   73     24   74     25   75     26   76     27   77     28   78     29   79     30   80     91   80     91   81     32   82     33   84     36   86     37   88     39   89     40   90     41   91     42   92     43   94     45   95     46   99     47<   |         |                  | П                | Г                  |  |               |              |          |  |          |  |     |       |          |              |              | Γ |
| 8   |         | 7                | V                |                    |  |               |              |          |  |          |  |     |       | 57       |              |              | r |
| 140   |         | 8                | J                |                    |  | Г             |              | П        |  |          |  |     |       | 58       |              |              | Γ |
| 41   12   61   62     42   63   64   64     44   65   65   65     46   66   67   68     49   68   69   70     20   70   71   72     23   73   74   72     23   73   74   74     25   75   76   77     28   79   79   80     27   79   80   81     32   82   82   82     33   84   84   84     36   85   86   87     38   89   90   90   91     41   91   91   92     43   94   95   96     47   48   98   99  |         | 4                |                  |                    |  |               |              |          |  |          |  |     |       | 59       |              |              | Γ |
| 12  |         | 40               |                  |                    |  |               |              | $\Box$   |  |          |  |     |       |          |              |              |   |
| 18-   14-   63   64   65   66   67   67   68   69   69   69   69   69   70   71   68   69   70   71   72   72   73   74   74   75   75   75   75   75   75  |         | 11               |                  |                    |  | L             |              |          |  |          |  |     |       | 61       |              |              | L |
| 144   |         | 12               |                  |                    |  |               | L            |          |  |          |  |     |       | 62       |              |              |   |
| 146   |         | 43-              |                  |                    | L  | _             | L            | _        | _  |          |  |     |       |          |              | _            | L |
| 46  |         | 14               |                  |                    | <u>L</u>   | L             | L            | 匚        | _  |          |  |     |       | 64       |              |              | L |
| 17   18   68     19   68   69     20   70   71     21   72   72     23   73   74     25   75   76     27   77   78     29   79   80     30   81   81     32   82   83     34   84   84     35   85   86     37   88   89     40   90   91     41   90   91     42   90   92     43   94   95     46   96   97     48   98   99  | <u></u> |                  |                  |                    | <u> </u>   | _             | L            |          | L_   |          |  |     |       |          |              |              | L |
| 19  |         | <del>-16</del> - |                  | <u> </u>           |  | L             | _            |          | _  |          |  |     |       | 66       |              |              | L |
| 19  | ļ       | 17               |                  | ㄴ                  | _  | _             | _            | _        | _  |          | <u> </u>   |     |       | 67       | L            |              | ļ |
| 10  |         | <del>18</del>    | ļ                |                    |  | L             | <u> </u>     | L        | <u> </u>   | _        | L  |     |       | 68       |              |              | ļ |
| 10  |         | <del>-19</del> - | _                |                    | <u>L</u>   | <u> </u>      | <u> </u>     | L        | L  |          | L_   |     |       | 69       |              |              | ļ |
| 10  |         |                  | <u> </u>         |                    | <u> </u>   | <u> </u>      | ļ            |          | _  |          | _  |     |       | 70       | <u> </u>     | <u> </u>     | 1 |
| 14  |         |                  | <u> </u>         | <u> </u>           |  | _             | <u> </u>     |          | _  |          |  |     |       | 71       | <u> </u>     | ╙            | Ļ |
| 14  |         | -22              | <u> </u>         | _                  | L  | _             | <u> </u>     | L        | L-   | <u> </u> | <u> </u>   |     |       | 72       | <u> </u>     | <u> </u>     | ļ |
| 75  |         | _                | <u> </u>         |                    |  | _             | <u> </u>     | <u> </u> | <u> </u>   | _        | _  |     |       | 73       | _            | _            | ļ |
| 26  | -       | -24-             | _                | _                  | <u> </u>   | <u> </u>      | ╙            | _        | <u> </u>   | <u> </u> | _  |     |       |          | <u> </u>     | <u> </u>     | ļ |
| 177   188   189 |         | 25               | <u> </u>         | <u> </u>           | <u> </u>   |               | <del> </del> | -        | -  | _        | _  |     |       | 75       | <u> </u>     |              | 1 |
| 18  | -       | _                | <u> </u>         | <u> </u>           | ┝  | <u> </u>      | ├            | ⊢        | ⊢  |          | -  |     |       | 7b       | -            | <del> </del> | + |
| 10  |         |                  | -                | ⊢                  | ⊢  | ⊢             | ⊢            | ⊢        | ⊢  | $\vdash$ | ⊢  |     |       | 70       | ⊢            | -            | ŀ |
| 30   80   81   82   82   83   84   84   85   85   86   87   88   89   89   89   89   89   89  |         |                  | -                | ⊢                  | ⊢  | ⊢             | ┢            | ├        | <del>  -</del>                                   | ⊢        |  |     |       | 70       | ⊢            | <del> </del> | ł |
| 31  | -       | _                | ⊢                | H                  | H  | ┢             | <del> </del> | ├        | -  | ⊢        | <u> </u>   |     |       |          | ┝            | -            | ł |
| 32   83   84   85   85   86   87   88   89   89   90   81   82   83   84   84   85   85   86   87   88   89   89   89   89   89   89  | -       |                  | ⊢                | ⊢                  |  | ├             | ├            | -        | ⊢  | $\vdash$ | ┝  |     |       | 00       | _            | $\vdash$     | ł |
| 33  |         |                  | ├-               | ├                  | ├  | ┢             | ├            | -        | ⊢  | H        | _  |     |       |          | -            | -            | ł |
| 34  |         | -22              | $\vdash$         | ⊢                  | $\vdash$   | $\vdash$      | ┢            | ⊢        | $\vdash$   | ⊢        | -  |     |       | 83       | ├            | <del> </del> | ł |
| 35   85   86   87   88   88   89   89   89   89   89  | -       |                  | $\vdash$         | $\vdash$           | ⊢  | ┢             | ┢            | -        | ┢  | ┢        |  |     |       |          | ┢            | -            | ł |
| 36  |         |                  | ⊢                | -                  |  | H             | ┢╌           | -        | ╁  | ┢        | -  | l   |       |          | <del> </del> | $\vdash$     | t |
| 37  |         |                  | -                | -                  | <del>                                     </del> | $\vdash$      | $\vdash$     | -        |  | $\vdash$ | -  |     |       | 86       | $\vdash$     |              | ł |
| 38 V  |         | 22               | ٠.               | $\vdash$           | $\vdash$   | $\vdash$      | $\vdash$     | $\vdash$ | ✝  | $\vdash$ | $\vdash$   |     |       |          | $\vdash$     | $\vdash$     | t |
| 40 V 90 91 91 92 92 93 93 94 94 95 96 96 97 98 99 99 99   |         | 38               | 1                | $\vdash$           | <del> </del>                                     | H             | 一            | $\vdash$ | <u> </u>   | ┢        | <del>                                     </del> |     | •     |          | $\vdash$     | $\vdash$     | t |
| 40 V 90 91 91 92 92 93 93 94 94 95 96 96 97 98 99 99 99   |         | 39               | V                | $\vdash$           | T  | $\vdash$      | Т            | T        | <del>                                     </del> | ┢        | $\vdash$   |     |       | 89       | $\vdash$     | Т            | t |
| 41 0 91 92 92 93 93 94 94 95 95 96 97 98 98 99 99   |         | 40               | J                | T                  | $\vdash$   | $\vdash$      | 一            | $\vdash$ |  | Г        | $\vdash$   |     |       |          | _            | _            | t |
| 43 O 93 94 94 95 95 96 97 48 98 99 99   |         | 41               |                  | 1                  | <u> </u>   | 1             | T            | 1        |  | Г        |  |     |       |          |              |              | t |
| 43 O 93 94 94 95 95 96 97 48 98 99 99   |         |                  | ð                |                    | Г  | Г             | Г            | Π        | П  |          |  | ĺ   |       |          |              | Г            | T |
| 44 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \  |         |                  | 0                | Г                  | Г  | П             | Ī            |          |  | Г        | Г  |     |       |          |              | Г            | T |
| 45 V 95 96 96 97 48 98 99 99  |         | 44               | V                |                    |  | L             |              |          |  |          |  |     |       | 94       |              |              | Ţ |
| 46 V 96 97 97 48 98 99 99   |         | 45               | M                |                    |  |               |              |          |  |          |  | ]   |       | 95       |              |              | Ī |
| 48 98 99 99 11 11 11 11 11 11 11 11 11 11 11  |         |                  | V                |                    |  |               |              | $\Box$   |  |          |  |     |       | 96       |              |              | ĺ |
| 49 99 99  |         |                  |                  |                    |  |               |              |          |  |          |  |     |       |          |              |              | ſ |
|   |         |                  |                  |                    |  |               | 匚            |          |  |          | 匚  |     |       |          |              |              | ĺ |
| <u> </u>  |         | 49               | $ldsymbol{oxed}$ | $oxedsymbol{oxed}$ | <u> </u>   | _             | L            | <u> </u> | _  |          | L_   |     |       |          | <u> </u>     | L            | ŀ |
|   | L       | 50               | L                |                    | Ц_   | L             |              | ட        | L  |          | L_   | J ( |       | 100      | <u> </u>     | L            | 1 |

| ,   | Claim  |                | Date                  |               |               |        |  |               |        |        |        |  |
|-----|--------|----------------|-----------------------|---------------|---------------|--------|--|---------------|--------|--------|--------|--|
|     | Final  | Original       |                       |               |               |        |  |               |        |        |        |  |
|     |        | 51<br>52       |                       |               |               |        |  |               |        |        |        |  |
| l   |        | 52             |                       | ot            | Ш             | ш      | <u> </u>                               |               | Ш      | لــــا | _      |  |
|     |        | 53             | $oxed{oxed}$          |               |               | Ш      |  |               | Ш      | لط     | _      |  |
| ĺ   |        | 54             | Ш                     |               | igsqcut       | Ш      |  | Ш             | Ш      |        |        |  |
|     | I      | 54<br>55<br>56 |                       |               |               | Ш      |  |               |        |        |        |  |
|     |        | 56             |                       |               | تــا          | لـــا  | Ĺ                                      | $\Box$        |        | لَـــا | oxdot  |  |
|     |        | 57<br>58       | لـــا                 |               | لـــا         | ╚      | لــا                                   |               |        |        |        |  |
|     |        | 58             |                       |               |               |        | oxdot                                  |               |        |        | Ĺ      |  |
| [   |        | 59             |                       |               |               |        |  |               |        |        |        |  |
| [   | أتسا   | 60             |                       |               | لَــا         | oxdot  | تــا                                   | Ĺ             |        | لَـــا | Ĺ      |  |
|     |        | 61             | لــــا                |               |               |        | ــــــــــــــــــــــــــــــــــــــ |               | $\Box$ |        |        |  |
|     |        | 62<br>63       |                       |               | $\Box$        | oxdot  | oxdot                                  |               | $\Box$ | لَـــا | Ĺ      |  |
|     |        | 63             | $\Box$                |               | oxdot         | oxdot  | oxdot                                  |               |        | LĪ     | L      |  |
|     |        | 64             |                       | $\Box$        | oxdot         | $\Box$ | oxdot                                  | آطا           |        | آسا    | Ĺ      |  |
|     |        | 65<br>66       | Ш                     |               | $\Box$        | Ш      | L                                      |               | لتا    | لَـــا |        |  |
|     |        | 66             |                       |               | Ĺ             | LĪ     | Ĺ                                      | $\Box$        |        |        | Ĺ      |  |
|     |        | 67             | $ldsymbol{L}^{ar{J}}$ |               |               |        | Ĺ                                      |               |        |        | Ĺ      |  |
| -   |        | 68             |                       |               | L             |        | Ĺ                                      | Ĺ             |        | LĪ     | Ĺ      |  |
|     |        | 69             |                       |               |               |        | L                                      | Ľ             |        | L      | Ľ      |  |
| ı   |        | 70             |                       |               |               |        |  |               |        |        | $\Box$ |  |
|     |        | 70<br>71       |                       |               |               |        |  |               |        |        | $\Box$ |  |
|     |        | 72             |                       |               |               |        |  |               |        |        |        |  |
|     |        | 73             |                       |               |               |        |  |               |        |        |        |  |
|     |        | 73<br>74       |                       |               |               |        |  |               |        |        |        |  |
|     |        | 75             |                       |               |               |        |  |               |        |        |        |  |
|     |        | 76             |                       |               |               |        |  |               |        |        |        |  |
|     |        | 76<br>77       |                       |               |               |        |  |               |        |        |        |  |
|     |        | 78             |                       |               |               |        |  |               |        |        |        |  |
|     |        | 78<br>79       |                       |               |               |        |  |               |        |        |        |  |
|     |        | 80             | П                     | Г             | П             | П      | Γ.                                     |               |        |        | Г      |  |
|     |        | 81             |                       |               |               |        | Γ                                      | Γ             |        |        |        |  |
|     |        | 81<br>82       |                       |               |               |        | Г                                      | Г             |        |        | Т      |  |
|     |        | 83             |                       |               |               |        | Г                                      |               |        |        |        |  |
|     |        | 84             | П                     |               |               |        |  |               |        |        |        |  |
|     |        | 85             |                       |               | П             | П      |  |               |        |        |        |  |
|     |        | 86             |                       | П             | П             | П      |  |               |        |        |        |  |
|     | $\Box$ | 87             | П                     |               | П             |        |  |               |        |        |        |  |
|     | .      | 88             |                       |               |               |        | $\Box$                                 | Г             | П      |        | Г      |  |
|     |        | 89             |                       | П             |               | П      | П                                      | Г             | П      |        |        |  |
|     |        | 90             |                       |               |               |        | Г                                      | Г             |        |        |        |  |
| ı   |        | 91             |                       |               |               | Г      | Γ                                      | П             |        |        |        |  |
| j   |        | 92             | П                     |               | П             |        |  | Г             |        | Γ      | Г      |  |
| Ì   |        | 93             |                       |               |               | Г      |  | Г             |        |        | Г      |  |
| - 1 |        | 94             |                       |               |               |        |  |               |        | Γ      |        |  |
| ļ   |        | 95             |                       |               |               |        |  |               |        |        |        |  |
|     |        | 96             |                       |               |               |        |  | <u> </u>      |        |        |        |  |
|     |        | 97             |                       |               |               |        |  |               |        |        | Γ      |  |
|     |        | 98             |                       |               |               |        |  |               |        |        |        |  |
|     |        | 99             |                       |               | ŀ             |        |  |               |        |        | Γ      |  |
|     |        | 400            | _                     | $\overline{}$ | $\overline{}$ | 1      | -                                      | $\overline{}$ | _      | _      | _      |  |

| Cl           | Date                            |  |                |          |  |          |              |          |              |                 |  |
|--------------|---------------------------------|--|----------------|----------|--|----------|--------------|----------|--------------|-----------------|--|
| Final        | Original                        |  |                |          |  |          |              |          |              |                 |  |
|              | 101<br>102<br>103               |  |                |          |  |          |              |          |              |                 |  |
|              | 102                             |  |                |          |  |          |              |          |              |                 |  |
|              | 103                             |  |                |          |  |          |              |          |              |                 |  |
|              | 104                             |  |                |          |  |          |              |          |              |                 |  |
|              | 105                             |  | _              |          | -  |          |              |          |              | $\blacksquare$  |  |
|              | 106<br>107                      |  | <del>ا</del> ب | _        | -  |          |              | H        |              |                 |  |
|              | 108                             |  | _              |          | -  | -        |              | Н        | _            | $\dashv$        |  |
|              | 109                             |  |                |          |  |          |              |          |              | Н               |  |
|              | 110                             |  |                |          |  |          |              |          |              |                 |  |
|              | 111<br>112<br>113<br>114<br>115 |  |                |          |  |          |              |          |              |                 |  |
|              | 112                             | <u> </u>   | _              |          | _  |          | _            |          |              | Ш               |  |
|              | 113                             |  | _              | _        | L  | _        | <u> </u>     | L        | <u> </u>     | Ш               |  |
|              | 114                             | _  | -              |          | _  | H        | _            |          | _            | $\dashv$        |  |
| <del> </del> | 1116                            |  | $\vdash$       | H        | $\vdash$   | $\vdash$ | -            | $\vdash$ | -            | $\vdash\vdash$  |  |
|              | 117                             | H  | $\vdash$       |          | $\vdash$   | Н        |              | $\vdash$ |              |                 |  |
|              | 117<br>118                      |  |                |          | _  |          |              |          | _            |                 |  |
|              | 119                             |  |                |          |  |          |              |          |              |                 |  |
|              | 120                             |  |                |          |  |          |              |          |              |                 |  |
|              | 121                             | _  | _              | _        | <u> </u>   | _        | _            |          | _            | Щ               |  |
|              | 122                             |  | L              | <u> </u> | _  | _        | ļ            | _        | <u> </u>     | Ш               |  |
| _            | 120<br>121<br>122<br>123<br>124 |  | -              | -        | -  | -        | <del> </del> | _        | <u> </u>     | Н               |  |
|              | 125                             |  | $\vdash$       | $\vdash$ | $\vdash$   | $\vdash$ | ├            |          | <del> </del> | Н               |  |
|              | 126                             | $\vdash$   | -              | -        | ┢  |          | ┢            | <u> </u> | ┢            | Н               |  |
|              | 125<br>126<br>127               | Т  | Г              | Т        | $\vdash$   | Г        | $\vdash$     |          | Ι-           | П               |  |
|              | 128<br>129                      |  |                |          |  |          |              |          |              |                 |  |
|              | 129                             |  |                |          |  |          |              |          |              | Ш               |  |
|              | 130                             |  | <u> </u>       |          |  | _        | _            |          |              | Ш               |  |
|              | 130<br>131<br>132               | _  | <u> </u>       | _        | <u> </u>   | <u> </u> |              | _        | _            | Ы               |  |
|              | 132                             | $\vdash$   | $\vdash$       | _        | -  | $\vdash$ | ├            | _        | -            | Н               |  |
| -            | 133<br>134                      |  | -              | -        | <del> </del>                                     | -        | ├            | -        |              | Н               |  |
|              | 135                             | 一  | $\vdash$       | $\vdash$ | ┢  | _        | -            | _        | -            | Н               |  |
|              | 136                             |  | $\vdash$       | $\vdash$ | $\vdash$   |          | $\vdash$     |          | $\vdash$     | П               |  |
|              | 136<br>137                      |  |                |          |  |          |              |          |              |                 |  |
|              | 138                             |  |                |          |  |          |              |          |              | Ш               |  |
|              | 139                             | _  | _              | _        | _  | <u> </u> | <u> </u>     | _        | _            | $\sqcup$        |  |
| -            | 140                             | -  | -              | <u> </u> | ┝  | _        | ┝            |          | <u> </u>     | $\vdash \vdash$ |  |
|              | 141                             |  | ⊢              |          | <del> </del>                                     | -        | $\vdash$     |          | $\vdash$     | Н               |  |
| -            | 143                             | <del>                                     </del> | -              | $\vdash$ | $\vdash$   | $\vdash$ | $\vdash$     | ┢        | $\vdash$     | Н               |  |
| l            | 144                             |  | $\vdash$       |          | <del>                                     </del> | $\vdash$ |              | $\vdash$ | Г            | Н               |  |
|              | 145                             |  |                |          |  |          |              |          |              |                 |  |
|              | 146                             |  |                |          |  |          |              |          |              |                 |  |
|              | 147                             | <u> </u>   | _              | L        | L  | _        | _            | L        | L            | Щ               |  |
|              | 148                             | <u> </u>   | <u> </u>       | ├-       | <u> </u>   | <u> </u> | <u> </u>     | _        | $\vdash$     | Щ               |  |
| <u> </u>     | 149                             | ├-   | _              | -        | -  | _        | <del> </del> | -        | $\vdash$     | ⊢┤              |  |
| Щ            | 150                             | L  | L_             | L        |  | Щ.       |              |          | <u> </u>     | Ш               |  |